

SINGER
INDUSTRIAL PRODUCTS

569U

3100 / 3200 SERIES

INSTRUCTION MANUAL

High Speed Single Needle Lockstitch Bar
Tacking Machine

The SINGER 569U class machine is a high speed, single needle, lockstitch, bar tacking machine and designed for pleasant sewing with stable high quality.

For best sewing results, it is suggested a few moments be taken to read through this operator's guide as you sit at your new machine.

Meanings of the symbols:

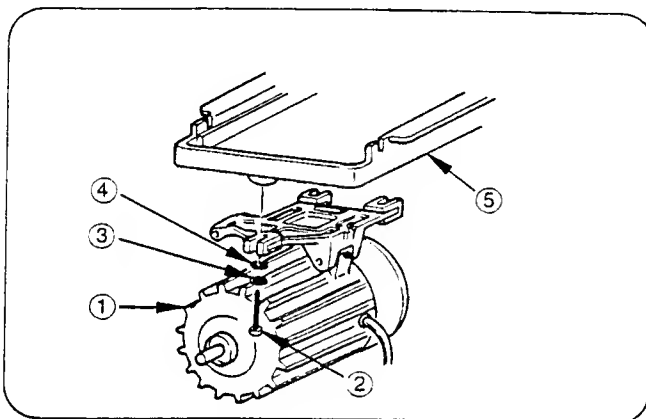


Danger of injury to operative or service staff
Be sure to observe and adhere to these
safety notes!

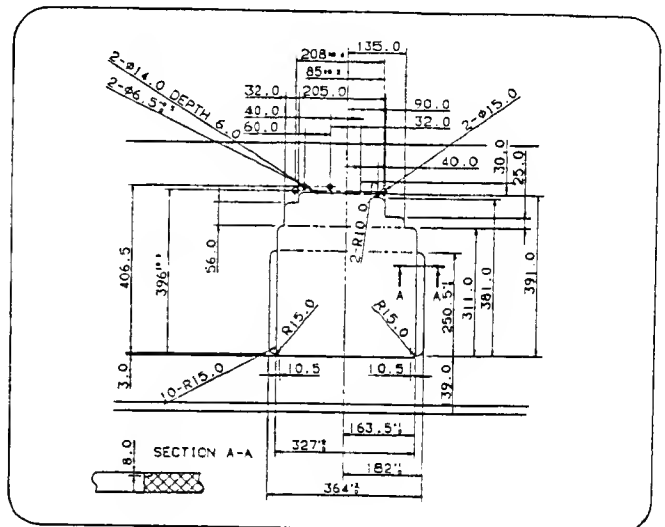
TABLE, STAND AND MOTOR

1. Table : part No. 505986-002 or equivalent.
2. Stand : part No. 601001-H02 or equivalent.
3. To mount motor.

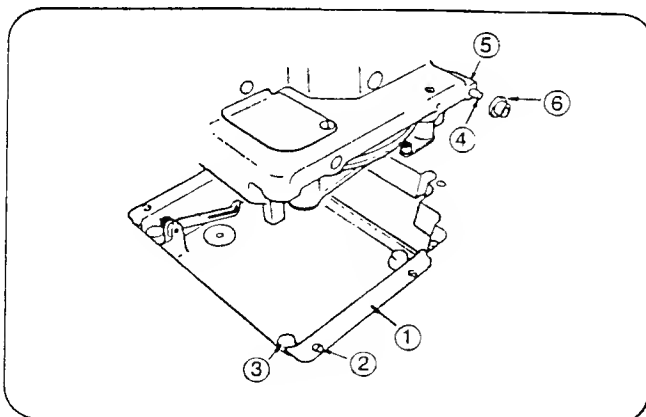
When using a commercial table, prepare in accordance with following chart.



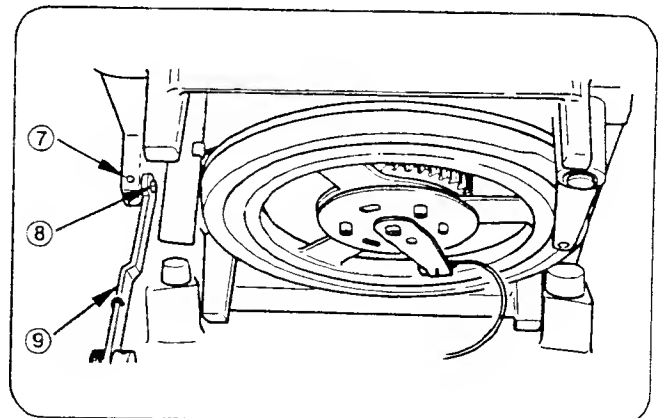
Mount motor 1 to oil drip pan 5 with motor mounting bolts 2, spring washers 3, and washers 4.



MACHINE HEAD INSTALLATION



1. Assemble oil drip pan 1 to table with four flat head wood screws 2.
2. Assemble cushions 3 to four corners of oil drip pan 1.
3. Insert machine hinges 4 into two places on the side of cylinder, tighten with set screws 5, assemble machine hinge collars 6 to machine hinges, and quietly place machine head on oil drip pan.

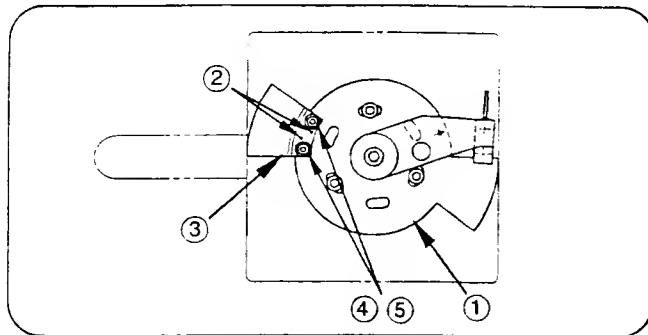


4. Tip machine back, loosen set screw 7, insert machine tilting latch lever hinge stud 8 into the long groove on latch lever 9 and tighten set screw 7.
5. To return machine in place, pull machine tilting latch lever 9 towards operator and raise machine quietly.



Danger of crushing between sewing head
and table top.

ASSEMBLY OF STOP SENSOR DETECTING BLADE

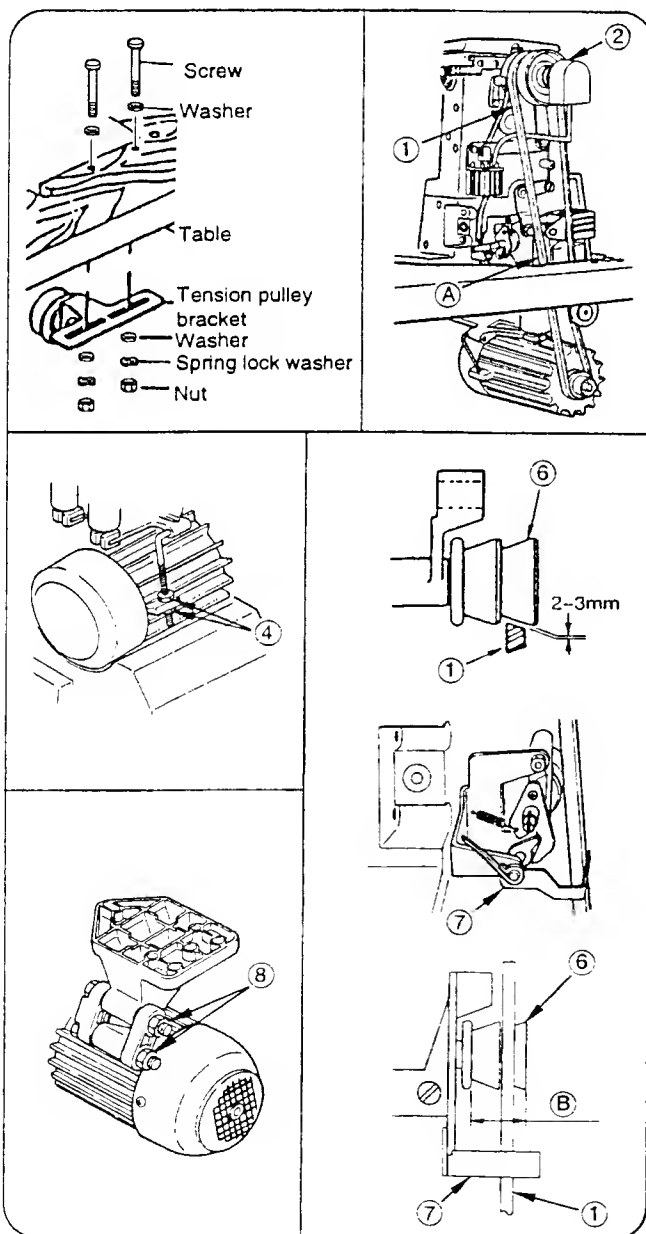


(569U3109-21L, 569U3138-21M)

Align position pin 2 on stop sensor detecting plate 1 to hole in stop sensor detecting blade 3 and fasten stop sensor detecting blade 3 to stop sensor detecting plate 1 with screw 4 and washer 5.

MOTOR PULLEY AND BELT

Motor pulley	DIA 60mm	P/N 373031-001
Belt	M type V-belt (50")	P/N 418487 (XC-BSGB series motor)
	M type V-belt (52")	P/N 418484 (S100SE series motor)



1. To install the tension pulley
Fasten tension pulley to underside of table as shown in the sketch.

2. To install the motor belt
(XC-BSGB series motor)
Slip V-belt 1 on to pulley 2 and motor pulley 3.
The correctly set V-belt should deflect approximately 10 mm when pressed with a force of 600 ~ 700 grams at the mid-point A between the machine pulley and motor pulley.
To adjust, loosen two nuts 4 and move motor up or down as required.

When correct tension has been obtained, tighten the two nuts 4 and press tension pulley 5 lightly against the belt.

Adjust clearance between V-belt 1 and bobbin winder pulley 6 from 2 to 3 mm by moving pulley guide 7 back or forth.

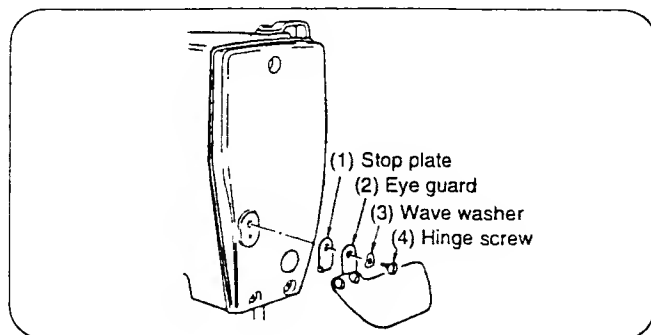
(S100SE series motor)

Slip V-belt 1 on to pulley 2 and motor pulley 3.
The correctly set V-belt should deflect approximately 10 mm when mid-point A between machine pulley and motor pulley pressed with 600 ~ 700 grams force.
Also, the left side of the V-belt (looking at machine from rear end) should be located within length B of the bobbin winder pulley.

To adjust, loosen two nuts 8 and move motor up or down, or sideways as required, and tighten the two nuts.

NOTE: Check and make sure the motor belt is adjusted to correct tension because loose motor belt tension will cause the machine to stop in positions other than the correct stop position and also cause the motor belt to vibrate.

ASSEMBLY OF EYE GUARD

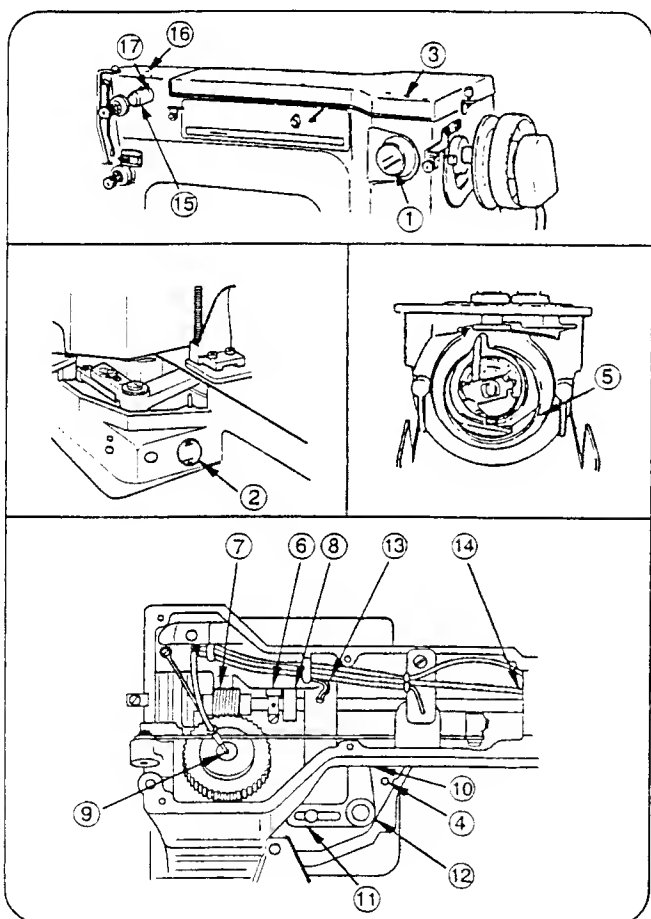


Assemble eye guard to face plate according to sequence shown in the sketch.



Switch off the machine.
Do not run machine without eye guard!
Danger of injury!

LUBRICATION



Use SINGER oil "TYPE C"

When oil in oil window 1, 2 is low, fill from oil hole 3, 4. In new machines or those that have been idle for some time, adequately lubricate the raceway of shuttle 5, crank connecting rod oil felt 6, vertical drive shaft worm oil felt 7, oscillating rock shaft oil felt 8, vertical drive shaft oil felt 9, lateral pivot driving arm oil felt 10, cylinder oil felt 11, longitudinal pivot driving arm oil wick 12, arm shaft bushing (center) oil wick 13, arm shaft bushing (front) oil wick 14, needle bar and thread take-up components and oil wicks in various places.

Remove shuttle bobbin case, shuttle race ring and shuttle body from shuttle race body and clean the parts once every day.

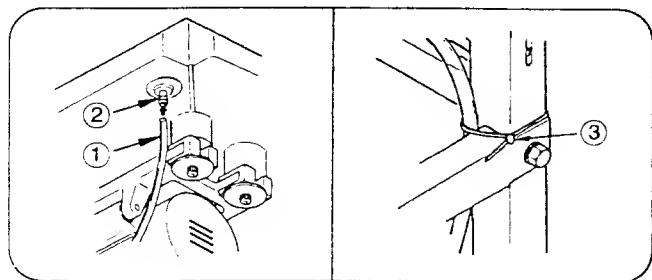
When thread lubricating reservoir 15 is used, fill with silicone oil from oil hole 16.

In this case, check to see silicone oil sticks to needle thread passed through thread guide 17.



Switch off the machine.

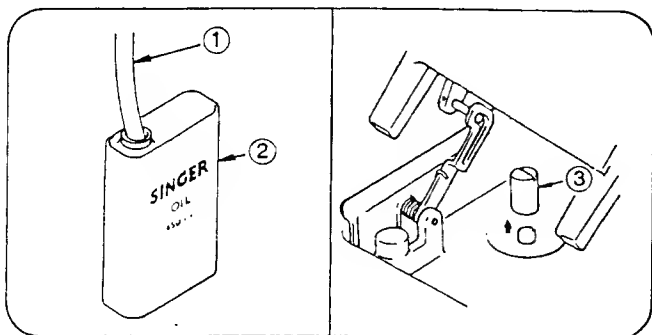
ATTACHING THE OIL TUBE



1. Fit oil drain tube 1 to oil drain tube screw sleeve 2 on underside of drip pan and push it on as far as it will go.
2. Fasten oil drain tube 1 to stand lightly with tube retainer 3.

NOTE: Be sure the drain tube is not compressed by fastening it too tightly.

USED OIL

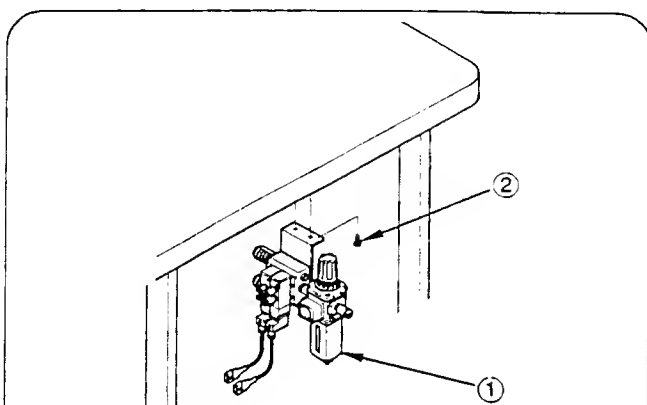


1. Inseat end of oil drain tube 1 into empty oil can 2.
2. Tip machine back and hold it in this position with machine tilting latch lever 4 and remove drip pan cap screw 3.



Switch off the machine.
Danger of crushing between sewing head and table top.

PIPING FOR PNEUMATIC SYSTEM



1. To install the solenoid valve
Fasten soleoid valve 1 to underside of table with wood screw 2 as shown.
2. To install the air tube
Connect port A (ø4, green) of solenoid valve (clamp lifting) 3 with port A (ø4, green) of clamp lifting cylinder 4 with air tube (ø4, green).

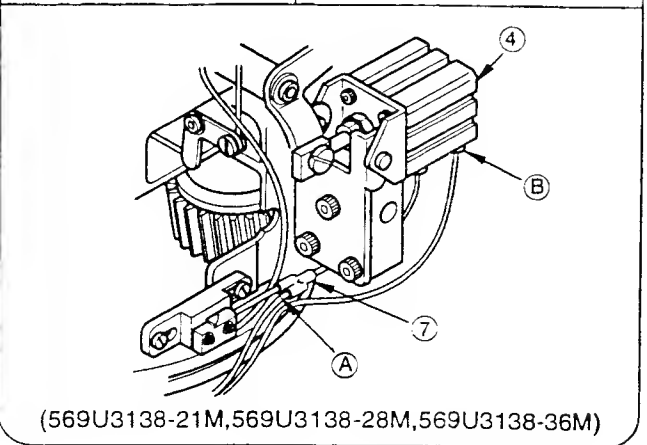
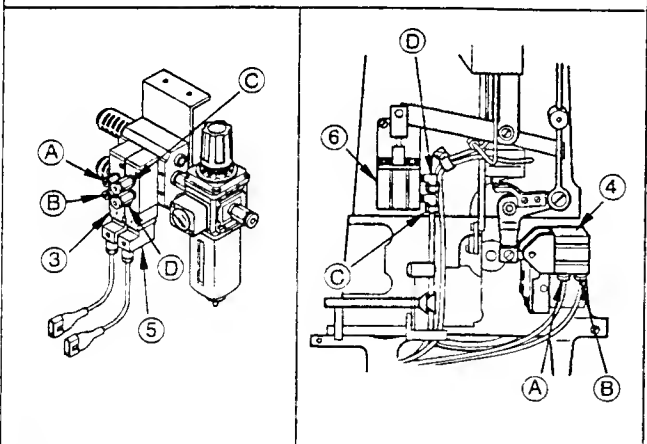
Connect port B (ø4, black) of solenoid valve (clamp lifting) 3 with port B (ø4, black) of clamp lifting cylinder 4 with air tube (ø4, black).

Connect port C (ø6, green) of solenoid valve (thread trimming) 5 with port C (ø6, green) of knife bar operating cam connecting crank releasing cam cylinder 6 with air tube (ø6, green).

Connect port D (ø6, black) of solenoid valve (thread trimming) 5 with port D (ø6, black) of knife bar operating cam connecting crank releasing cam cylinder 6 with air tube (ø6, black).

The air pressure should be adjusted to 0.6 Mpa (6Kg/cm²).

(569U3138-21M, 569U3138-28M, 569U3138-36M)
Connect port A (ø4, green) of solenoid valve (clamp lifting) 3 with port A (ø4, green) of air joint 7 with air tube (ø4, green).

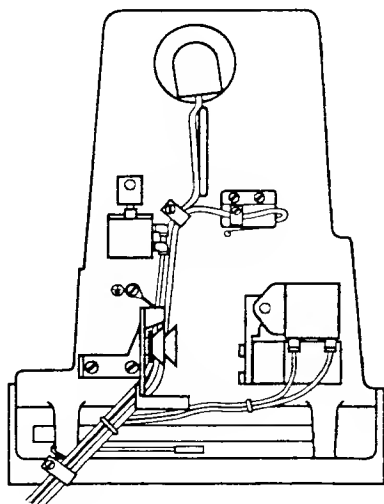
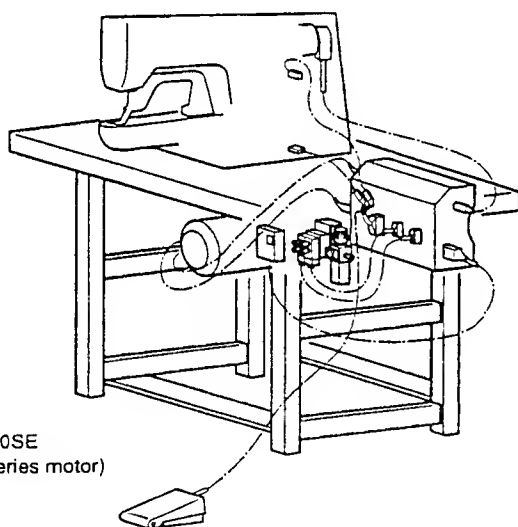
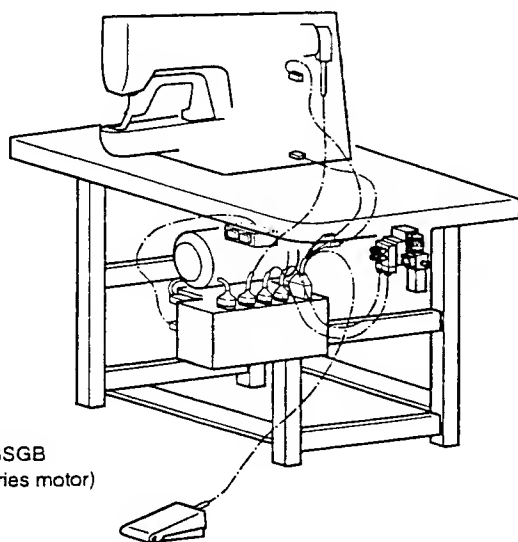


(569U3138-21M, 569U3138-28M, 569U3138-36M)



Switch off the machine.

TO CONNECT CABLES



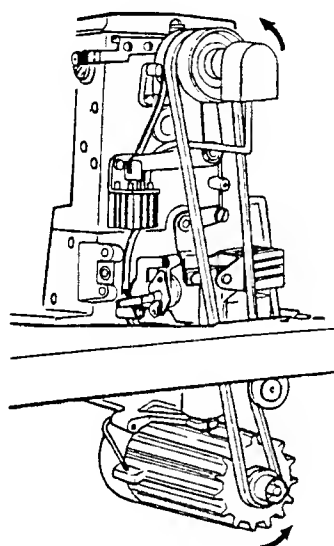
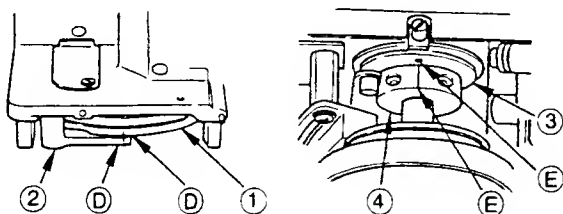
Connect each cord as shown at left.

Bundle the cords and air tubes with cord retainer and fasten to machine head with cord clips and screw as shown in the sketch.



Switch off the machine.

OPERATION OF MACHINE



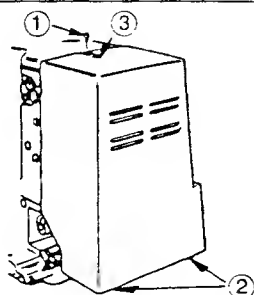
1. Clamp foot will rise when power switch is turned on.
2. Clamp foot will descend when pedal is depressed to position B. To raise the clamp foot, return pedal to neutral position A.
3. The machine will start to run when pedal is depressed from position B to position C. Return pedal to neutral position A immediately when machine starts to run.
4. When specified number of stitches have been sewn, the thread is trimming as the clamp foot rises and the machine will stop completing one cycle.

- NOTE:
1. If clamp foot does not rise when power switch is turned on, check whether air pressure is set at 0.5 Mpa (5Kg/cm²) ~ 0.6 Mpa (6Kg/cm²). Turn on power switch again after making sure the air pressure is set to correct pressure. The machine will not function if air pressure is too low or if there is no pressure.
 2. Be sure the stop sensor detecting blade attached to the inspection tag is fastened to the stop sensor detecting plate before operating the 569U3109-21L and 569U3138-21M machine.
 3. Before turning on the power switch, tip the machine back, turn machine pulley by hand and check and make sure the timing mark D on feed cam I is almost in line with timing mark D on lateral rock driving arm 2. Then set machine upright and replace the motor belt and align timing mark E on knife bar operating cam 4 with timing mark E on arm shaft ball bearing retaining plate 3.
 4. Do not rotate the machine in reverse as it may cause breakdown.



Keep fingers away from backside machine!
Danger of injury!

ASSEMBLY OF BELT GUARD



To assemble belt guard, fit cushions 2 into holes on table, assemble belt guard in place as illustrated and fix belt guard lock plate 3 with belt guard lock screw 1.



Switch off the machine.
Do not run machine without belt guard!
Danger of injury!

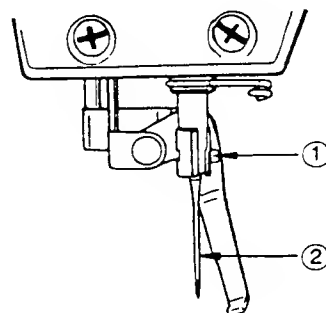
NEEDLES

Needle used has a direct affect on the quality of the stitches produced. Correct needle usage is very important for complete function of the machine and so always use singer needles indicated in chart to obtain best sewing finish.

Catalog No.	Size
1955-01	8, 9, 10, 11, 12, 13, 14, 15, 16, 17 18, 19, 20, 21, 22, 23, 24, 25

Needle size differs according to thread thickness and type of material, and so select a needle best suited for this. When proper needles are used, thread can be threaded freely through the needle eye and thread will not break during sewing. A bent needle can be cause of skip stitches. Also blunt or burred needle points may cause skip stitches and material damage.

INSERTING THE NEEDLE

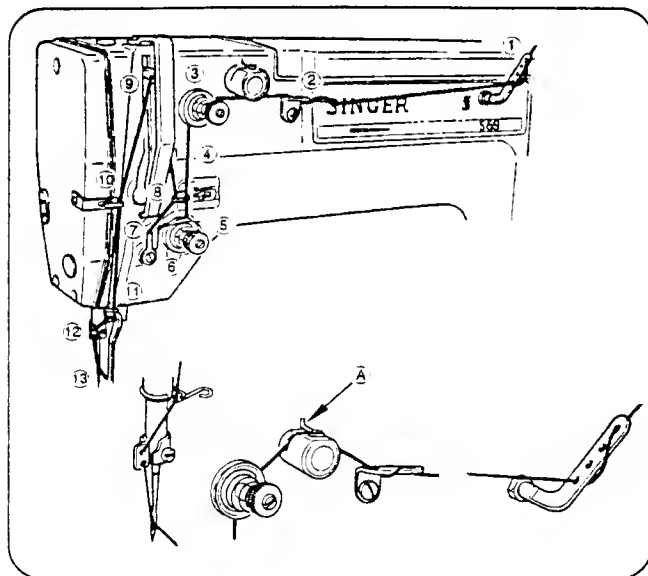


Loosen needle clamping screw 1 and insert needle 2 fully into needle bar with long groove of needle 2 facing operator. Securely tighten needle clamping screw 1.



Switch off the machine.

THREADING THE MACHINE



Thread machine in accordance with sequence illustrated at left.

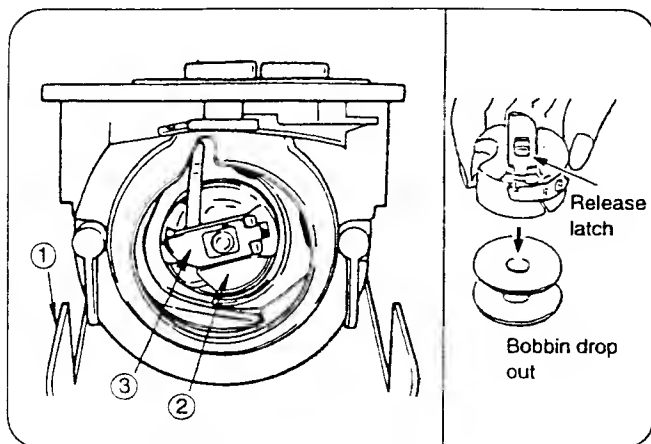
Draw about 3.5 cm of thread through the eye of needle after threading.

NOTE: When using silicone oil, pass thread through thread guide A.



Switch off the machine.

REMOVING AND REPLACING THE BOBBIN CASE



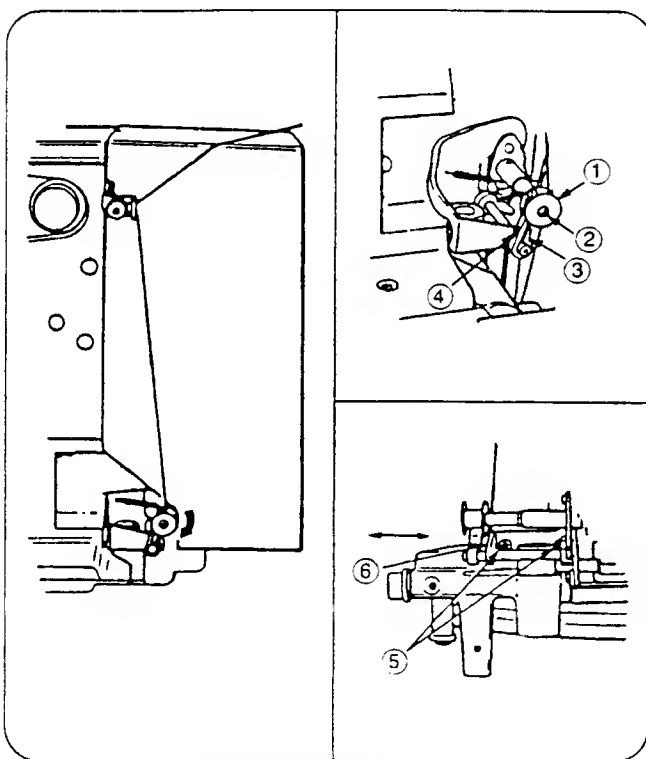
Pull cylinder cover 1 toward operator and open, raise latch 3 on bobbin case 2, and remove bobbin case. While latch is raised, bobbin will not drop out of bobbin case. To replace, insert bobbin case fully into stud on shuttle and release latch.

To remove bobbin from bobbin case, release latch, face opening of bobbin case downwards and bobbin will drop out as shown.



Switch off the machine.

WINDING THE BOBBIN



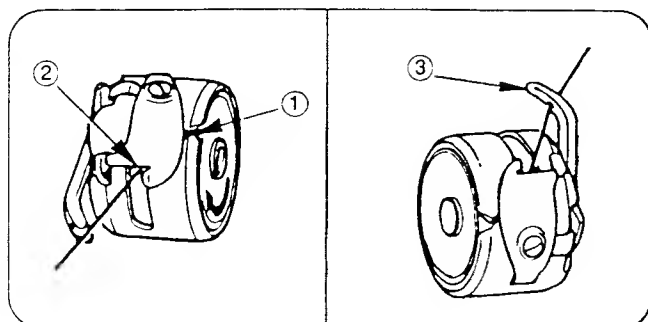
Insert bobbin 1 fully into bobbin winder spindle 2. Pass thread as illustrated and wind thread end a few times in the arrow direction.

Pressing bobbin winder stop latch thumb lever 3 in the arrow direction, thread will automatically wind and automatically stop when specific amount of thread is wound.

To decrease thread amount on bobbin, loosen screw 4 and move lever 3 in the arrow direction.

If thread winds unevenly on bobbin, loosen screw 5 and adjust by moving bobbin winder bracket 6 in the arrow direction.

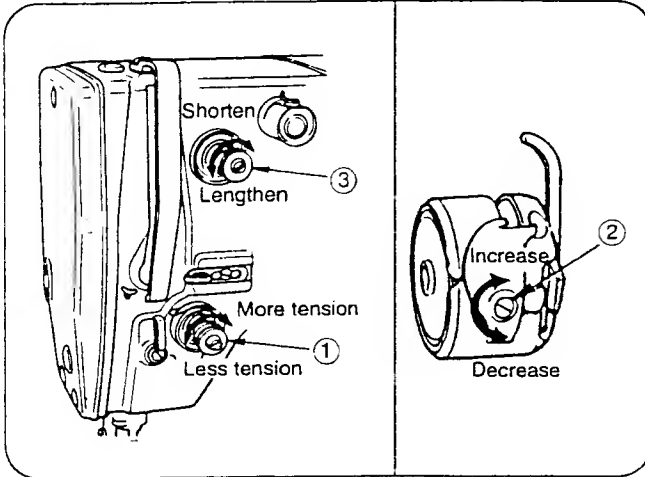
THREADING THE BOBBIN CASE



Place bobbin into bobbin case, pass thread through slot 1 and draw from hole 2. At this time, check to see bobbin rotates in the arrow direction.

Pass thread through hole 3 on tip of finger and draw about 4 cm of thread from the hole.

ADJUSTMENT OF THREAD TENSION



Needle thread tension

To increase needle thread tension, turn tension regulating thumb nut 1 to the right, and to decrease, turn to the left.

Bobbin thread tension

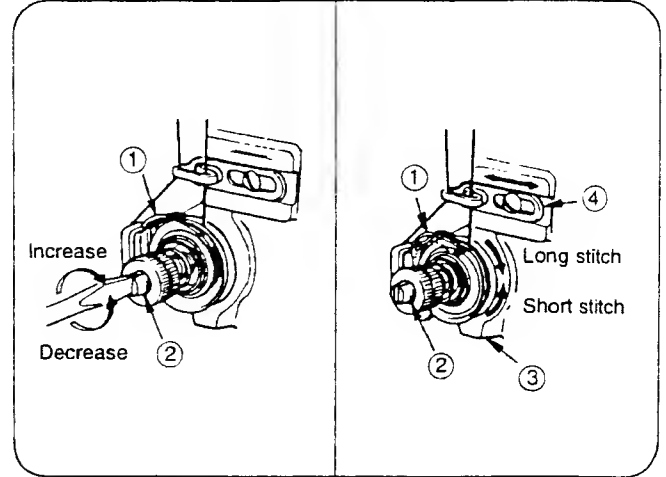
To increase bobbin thread tension, turn fulcrum tension regulating screw 2 to the right, and to decrease, turn to the left.

Needle thread end length after trimming

To shorten needle thread end after trimming, turn pre-tension regulating thumb nut 3 to the right, and to lengthen, turn to the left.

Thread end length should be as short as possible but should not pull out of needle eye.

ADJUSTMENT OF THREAD TAKE-UP SPRING & THREAD RETAINER



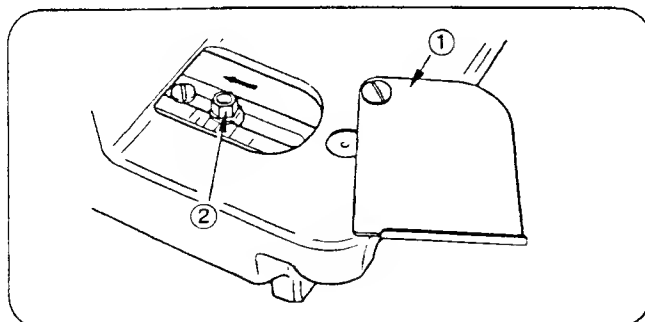
Tension and operating range of thread take-up spring 1 may require different settings depending upon the size of thread and material used. Heavier thread or material requires stronger tension, thin material requires less tension and longer operating range.

To adjust spring tension, insert a large screwdriver into slot of stud 2 and turn left to decrease or right to increase.

To adjust spring operating range, loosen screw 3 and turn entire assembly to left to decrease or right to increase.

To obtain good stitch tightness depending on the thickness of material or length of stitch, it may be necessary to adjust the thread guard 4 to the left or right. For heavy material or long stitches, move thread guard to the right and for light material or short stitches, move thread guard to left.

ADJUSTMENT OF BAR TACKING LENGTH

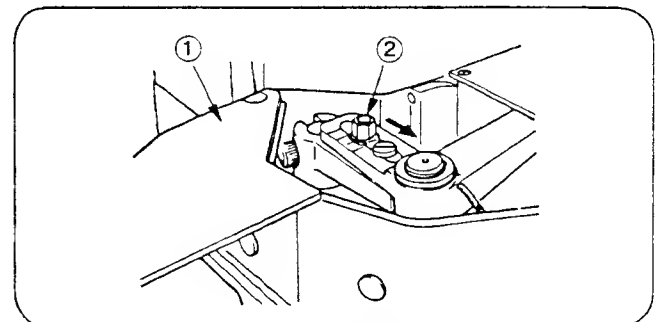


Open cover 1 and loosen nut 2. To lengthen bar tacking length, move nut 2 in the arrow direction, and to shorten, move in the opposite direction.



Switch off the machine.

ADJUSTMENT OF BAR TACKING WIDTH

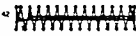
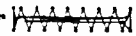
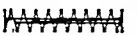
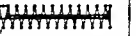
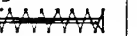
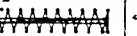
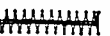


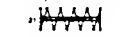

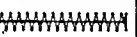
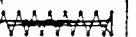
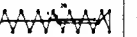
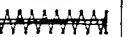
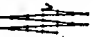
Open cover 1 and loosen nut 2. To widen bar tacking width, move nut 2 in the arrow direction, and to reduce, move in opposite direction.

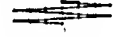
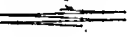
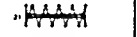
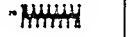



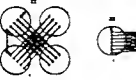
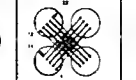
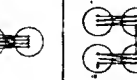
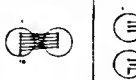
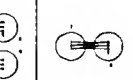

Switch off the machine.

SPECIFICATION

Model	569U3108-42M	569U3141-28M	569U3142-36M	569U3108-42H * 569U3208-42H	569U3141-28H * 569U3241-28H	569U3142-36H * 569U3242-36H	569U3108-42L
Application	General Clothing	General Clothing	General Clothing	Denim	Denim	Denim	Light Material
Stitch Pattern							
No. of Stitches	42	28	36	42	28	36	42
Bar Tack Length (mm)	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0
Bar Tack Width (mm)	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0
Needle (Catalog No.)	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01
Max. Clamp Foot Lift (mm)	17	17	17	17	17	17	17
Max. Speed (s.p.m.)	2,300	2,300	2,300	2,300	2,300	2,300	2,300

Model	569U3108-42LCS	569U3109-21L	569U3109-28L	569U3111-42L	569U3141-28L	569U3141-28LCS	569U3142-36L
Application	Light Material	Light Material	Light Material	Light Material	Light Material	Light Material	Light Material
Stitch Pattern							
No. of Stitches	42	21	28	42	28	28	36
Bar Tack Length (mm)	3.2 ~ 16.0	3.2 ~ 8.0	3.2 ~ 8.0	9.6 ~ 22.2	3.2 ~ 16.0	3.2 ~ 16.0	3.2 ~ 16.0
Bar Tack Width (mm)	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0
Needle (Catalog No.)	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01
Max. Clamp Foot Lift (mm)	17	17	17	17	17	17	17
Max. Speed (s.p.m.)	2,300	2,300	2,300	2,300	2,300	2,300	2,300

Model	569U3142-36LCS	569U3149-28L	569U3139-28M	569U3149-28M	569U3138-21M	569U3138-28M	569U3138-36M
Application	Light Material	Light Material	Belt Loops	Belt Loops	Buttonholing	Buttonholing	Buttonholing
Stitch Pattern							
No. of Stitches	36	28	28	28	21	28	36
Bar Tack Length (mm)	3.2 ~ 16.0	4.8 ~ 12.7	3.2 ~ 12.7	4.8 ~ 25.4	3.2 ~ 8.0	3.2 ~ 8.0	3.2 ~ 8.0
Bar Tack Width (mm)	1.0 ~ 3.0	-	-	-	1.0 ~ 3.0	1.0 ~ 3.0	1.0 ~ 3.0
Needle (Catalog No.)	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01	1955-01
Max. Clamp Foot Lift (mm)	17	17	17	17	17	17	17
Max. Speed (s.p.m.)	2,300	2,000	2,000	2,000	2,000	2,000	2,000

Model	569U3105-22			569U3117-16		
Application	Button Sewing			Button Sewing		
Stitch Pattern						
No. of Stitches	22	11+11	11	16	8+8	8
Across Arm Length (mm)	2.5 ~ 6.5			2.5 ~ 6.5		
Up Arm Length (mm)	0 ~ 6.5			0 ~ 6.5		
Diameter of Button (mm)	8.7 ~ 31.8			8.7 ~ 31.8		
Needle (Catalog No.)	3355-01			3355-01		
Max. Button clamp Foot Lift (mm)	13			13		
Max. Speed (s.p.m.)	2,000			2,000		

* 1.7 Times oscillating shuttle

